

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

CLAIMS

1. The food and drink managing device in circulation type carrying path for providing food/drink containers mounting foods and drinks to customers by an endless circulating carrying path, including;
an identification information reading means that enables to read the identification information which is given on said food/drink container to be able to identify individual food/drink containers, and is provided near said circulating carrying path,
at least one sign parts circulating and moving as linked with said circulating carrying path,
a pass-through detection means which is provided near said circulating carrying path to detect passing through of said sign parts,
a registering means which is connected to said identification information reading means and said pass-through detection means, divides an interval between passing sign parts to be one zone, and registers the identification information of the containers read by said identification information reading means, as foods and drinks in supplying, by coordinating it with a zone in which the containers exist,
and food/drink containers throwing-in prohibited area with the given length from the place of provided identification information reading means towards the upper side of circulation carrying path.
2. The food and drink managing device in circulation type carrying path as claimed in claim 1, wherein said food/drink container throwing-in prohibited area has throwing-in protecting wall going along circulation carrying path.
3. The food and drink managing device in circulation type carrying path as claimed in claim 1, wherein said food/drink container throwing-in prohibited area has tunnel-shaped-cover that covers food/drink containers circulating.
4. The food and drink managing device in circulation type carrying path as claimed in claim 3, including said identification information reading means inside said tunnel-shaped-cover, and electromagnet shield on the surface of said tunnel-shaped-cover.
5. The food and drink managing device in circulation type carrying path as claimed in whichever of claim 1~4, including said several sign parts of which each is settled in almost equal interval on circulation type carrying path.

6. The food and drink managing device in circulation type carrying path as claimed in claim 1~5, wherein said sign parts has sign identification information readable by said identification information reading means, and said identification information reading means is combined with said pass-through detection means.
7. The food and drink managing device in circulation type carrying path as claimed in whichever of claim 1~6, wherein said registering means, when detecting new identification information by said identification information reading means, registers the identification information with relating the time information in that moment.
8. The food and drink managing device in circulation type carrying path as claimed in whichever of claim 1~7, wherein said registering means, when said sign parts in the lower side of said zone passed and the identification information registered as supplying food and drink by coordinating it with the zone would not be detected, changes the record of identification information to one of removing food and drink, and registers the time information of said registering change by coordinating it with identification information, and further, holds said registration in the specified time.
9. The food and drink managing device in circulation type carrying path as claimed in claim 8, wherein said registering means can change said specified retention time for said registration of removing food and drink.
10. The food and drink managing device in circulation type carrying path as claimed in whichever of claim 1~9, wherein said identification information reading means can read the identification information given on said food/drink container without contacting.
11. The food and drink managing device in circulation type carrying path as claimed in claim 10, wherein the giving on the identification information to said food/drink container is providing ID tag, which can send ID as stored identification information by wireless, to food/drink container.
12. The food and drink managing device in circulation type carrying path as claimed in whichever of claim 1~11, wherein said identification information can identify the price information of food and drink.

13. The food and drink managing device in circulation type carrying path as claimed in whichever of claim 1~12, wherein said identification information reading means is provided on lower part near food/drink throwing-in area in circulation carrying path.